

ABSTRACT

Safety device for monitoring safety distances in relation to destinations and in relation to movable objects as well as different maximum traveling speeds, in particular, for elevators and, preferably, for arrangement on an elevator car, comprising a distance and speed determination unit, a comparator device for comparing the predetermined distance dependent on the destination and having an associated nominal speed with the actual values and a triggering unit for triggering a braking device when the nominal values are exceeded. The aim of the invention defined in the patent claims is to adapt the present-day mechanical speed limiter to the requirements of modern elevator systems as well as to add new functions. The most important of these are:

- monitoring several speeds as well as acceleration and braking phases
- monitoring distances to mobile and stationary obstacles in the shaft
- precise, quick-reaction triggering
- memory function for recording elevator data relevant to safety in the case of any failure

The advantages achieved with the invention consist, in particular, in the fact that fast elevators with shortened shaft end areas are feasible and several cars can travel safely in one shaft. In addition, a higher safety standard for the passengers is achieved for all elevators.